Report of Survey of OCS
Extract of Summary Section.

SECRET

I. SUMMARY

1. The Office of Computer Services, DD/S&T, is responsible for satisfying those automatic data processing (ADP) requirements that are handled centrally. It has an authorized strength of [redacted] staff employees, spends about [redacted] a year, and has about one-third of the Agency's ADP resources. 25X1 25X9

2. OCS consists of a Director's office, three staffs and four divisions. The staffs develop new computer techniques, conduct ADP training and handle general administration. Three divisions--Management Support, Intelligence Support, and Scientific Applications--assist in the design of ADP systems and develop computer programs. The fourth, the Operations Division, runs the computers and handles production requirements. The managers of the Office, staffs and divisions are energetic and talented; their work force is highly skilled.

3. Although computer specialists are in great demand, the turnover rate in OCS is not unusually high. For example, in a recent six-month period, only four left to accept employment elsewhere. Most of the Office professionals plan or want to make a career in the Agency and believe that their talents and skills were being used effectively. As in other organizations, however, the young professionals want to be given challenging assignments and promotion opportunities as they mature. They also express the need for better communications up and down and question some OCS management practices.

SECRET

4. The development of ADP experts within the Agency through training, advancement and rotation is presently the responsibility of several different components using computers. An ADP career service has been suggested as a means of providing efficient centralized personnel management and making maximum use of such talents. While much can be said in favor of such a service, we do not believe that this is the time for this move, largely because we found it difficult to separate technical ADP responsibilities from substantive responsibilities of the systems analysts and some programmers. We recommend that the Information Processing Board (IPB) do what it can to facilitate the career development of ADP people.

5. Rotation of OCS computer specialists into substantive components and the assignment of substantive experts to OCS can do much to close the communications gap and assure more efficient use of ADP in the future. Some of this has been done and with good results. Improvements in the quality and range of OCS services to customers can also be brought about by a number of managerial steps. Specifically, there is a need for better written standards and procedures; for improvement in staff work; for better ADP documentation; and for a tightening up of supervisory practices and housekeeping routines. While OCS has done well in keeping up with demands for its services in a period of rapid ADP growth, it is now time to improve the organization and management of its basic resources.

6. The Scientific Applications Division of OCS is engaged in an impressive array of programs and projects in support of a diverse list of customers (OSI, OSA, OEL, FMSAC, OC, OSP, OER, OMS, TSD, etc.). Its work is satisfactory, but the division needs better records on the availability of software systems. The division's bull pen-type work area makes concentration for its highly qualified mathematicians and scientist practically impossible; a condition they feel lowers their efficiency to perhaps 35 percent.

7. The Management Support Division maintains about 50 systems which produce some 1,000 different kinds of reports for all components of the Support Services and other Agency elements. Most of the programs for the systems were designed to run on earlier generation computers than those OCS now has. This means that these more advanced computers perform like an older, less advanced, less efficient computer while running these programs (referred to as emulation). In addition, some of the systems are poorly documented and have been revised and patched in a piecemeal fashion, thus increasing inefficiency and inflexibility.

8. The Management Support Division has a large investment in the Support Information Processing System (SIPS) which now has [redacted] OCS and [redacted] DDS people working on it as a SIPS Task Force. The effort to design and develop SIPS began in 1964 with fewer people involved but with the basic aims the same. These were to report support data

25X1

25X1

more completely and faster, to reduce redundant reporting, and to lower data manipulating time. What began as an effort to design and develop overly sophisticated systems has now been cut back to 40 sub-systems within ten major systems which are in three areas--human, financial, and material resources. The effort has also been modified to allow an incremental approach in the design and development of the ten systems rather than introduce them all at once. After the earlier years of frustrations and little real success, the Task Force now appears to be progressing. However, we found a need for the establishment of more firm system parameters; a need to determine programming methods (batch or on-line); and a need to standardize data elements and codes. We also found a need for the DDS components to devise and firm up their input procedures, to make plans for the utilization of the outputs, and to arrange training for the staffs involved in the new procedures.

9. In the past, the SIPS Program has lost momentum because of insufficient technical expertise and indecisive communications with management. It appears that these problems have been overcome and that the Task Force now has specific plans as to where it is heading and when it will get there. However, much is still to be done and continued support is essential. To stop the SIPS effort now would mean the loss of a large investment. Further delays in developing the systems would be very costly.

10. Some of the staff who have been detailed to SIPS from support offices need counseling. Their morale is low because they feel that they are out of the mainstream of consideration for promotions and reassignment opportunities. A recommendation on this point is included in the report.

11. The Intelligence Support Division works for the DDI, the DD/S&T, the DDP, NIPE, and OC. Its main projects involve the storage and manipulation of large masses of information. The majority of the division's work is regarded as satisfactory by the users. One software program developed by the division is not getting the use OCS feels it should, however. This is CAPRI (Centralized Automatic Processing and Retrieval of Intelligence). It is based on the premise that many requirements in organizing, processing, and displaying information are enough alike, even though the substantive content is dissimilar, to allow the multiple use of one ADP program for a wide number of users. The program is ready but has few users. OCS believes that the program meets many of the DDI's basic information storage and retrieval requirements. A number of DDI members, however, feel that CAPRI has limited practical use. In this and in other fields closely related to the work of Central Reference Service of DDI, there has been a lack of clarity regarding OCS responsibilities. We have recommended that the Deputy Director for Intelligence and the Deputy Director for Science and Technology

focus their attention in clarifying the roles and responsibilities of OCO and CRS.

12. We found that the Intelligence Support Division was once poorly managed, underemployed, and had inadequate standards, procedures and documentation. A change in management corrected the first problem; the new management is correcting the second; the third remains a problem.

13. The Operations Division runs the computer center. It is competently managed, and a small technical staff provides great help in day-to-day problem solving. Most of its employees are computer operators, key punch operators, and clerks. The division performs a great deal of work reliably and promptly.

14. In studying the operations of the computer center, the inspectors were impressed by the complexity of decision-making in the field of equipment selection. Clearly, the rate of technological advance tends to outstrip our ability to make efficient use of the computers we have (i.e., need for emulation). It also seems to force the pace of decision-making about the future structure of our work in this area. High-capacity, high-speed computers are available, and it would be tempting from the point-of-view of cost to move in the direction of integrated operations and time-sharing operations. At the same time much of the Agency's work requires flexibility and a high degree of security. There are those who

believe that fourth-generation small computers assigned to support our work in certain specialized, compartmented fields and "controlled" by the using component are the answer to the need for flexibility and security. But it is not at all clear when such computers will be available and what they will cost.

15. We suggest that the Agency pause and take stock. There is a need to catch up with the equipment on hand and a need to select our future course with great care.

16. The need for central Agency review and coordination of ADP was met in part by the Executive Director-Comptroller's memorandum of 13 October 1969, which created an Information Processing Board (IPB) chaired by an appointee of the Executive Director-Comptroller. This was a strong step forward in meeting this need but does not eliminate all problems. The Board does not have full-time members. All, including the Chairman have other jobs. The Board has no real authority. Its functions are largely advisory in nature and essentially are as follows:

a. To assist in the formulation of policy-planning guidance.

b. To suggest how to eliminate duplication or achieve compatibility.

c. To assist in determining the best use of Agency ADP facilities.

d. To advise the Executive Director-Comptroller.

17. The IPS, then, has no real authority. We believe this authority for the coordination of Agency ADP might better be placed in the hands of a full-time Board Chairman who reports directly and only to the Executive Director-Comptroller and has the support of a strong professional staff.

18. The Community On-Line Intelligence System (COINS) experiment affects the work of OCS in several ways. The basic system appears to be faulty. It ties up one OCS computer for three hours a day. Problems with software, different filing and coding systems, and a common computer language problem have not been solved. It is possible that the system does not meet a valid intelligence need. Finally, it poses problems in one area in which the Agency is already overloaded with problems, that of ADP security.

19. Certain security problems are inherent in ADP. A great deal of intelligence and support information is in one central place. The information is in packages easily removed or copied. Electromagnetic radiation must be eliminated by careful shielding. Spillage of compartmented information present in time-sharing multi-classification level systems is possible. The many remote terminals in time-sharing systems increase the possibility of unauthorized access to compartmented information. The flood of computer-produced intelligence information can create classification and dissemination control problems.

20. There is a need to form a task force of security and ADP specialists large enough and competent enough to deal with these problems and those additional ones that are caused by COINS. The security effort addressed to these problems at present is quite inadequate.

21. We found that OCS is customer-oriented and responsive to customer requirements within the limits of OCS capabilities. A number of problems raised by the users, however, must be given continued attention. These start with a communications gap wherein the customers cannot understand the jargon used by the computer specialists, and the computer people do not fully understand the substantive information needs of the users. Some customers are influenced, perhaps unduly, by their past experiences with ADP and computers and tend to be skeptical about cost and time estimates. They also tend to be critical of ADP outputs where the inputs were made by some other person or component; on the other hand, they are satisfied with outputs in which they made the inputs. Some voiced concern about the lack of reliability of the OCS interactive time-sharing system and the amount of "down-time." Some believe OCS and ORD should have better planning and closer working relationships. A number of customers pointed out the lack of any clear-cut OCS priority system for allocation of analyst and programmer time in relation to the substantive importance of the application. Most

thought that their own ADP systems or programs needed upgrading and improving in some way. In the main they tended also to be as critical of those ADP-related processes for which they were responsible as they were of services performed by OCS. They blamed themselves and also believed that their own management had not always given ADP the proper degree and level of interest and support to ensure good system design and reliable input procedures. On the positive side, customers in the Support Directorate reported reasonably good OCS service for on-going programs, and we found this to be the overall Agency attitude in this area of Office operations.

22. OCS and the Office of Training have made a commendable effort in providing the right kind of training for ADP specialists and users. Only two areas seem to have been slighted--increased emphasis on the disciplines associated with systems analysis, and the training of high-level Agency managers who, in the long run, make many of the key ADP decisions for the Agency.

23. Finally, it is our belief that OCS must establish a system for costing ADP services and must be given assistance in solving the problem of working space.